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Suggestions in favour of the Systematic Collection of the Statistics of Agriculture. By G. R. Porter, Esq., F.R.S., &c.

[*Read before the Statistical Section of the British Association, 26th August,* 1839.]

If, throughout the whole range of *material* interests that affect the well-being of a community, there be any one subject of greater importance than another,—which, more than any other, exercises an influence over the condition, the progress, and the happiness of all classes of society,—without doubt that subject is the adequate supply of food for the people: and yet this is a subject which in our country has never hitherto been considered to any useful or practical end. What should we think of a General who should make no inquiries into the means that existed for the daily feeding of the army committed to his charge? and yet we supinely acquiesce in the apathy which has allowed the English Government to remain in ignorance of those means, with reference to the sustenance of the millions of which the nation is composed. Nay, more; we have allowed jealousies, prejudices, and the undefinable apprehensions of ignorance, to oppose every attempt at inquiry in this direction.

The amount of our ignorance upon this most important subject is so great, that to this day the public is without any authentic document from which to know even the quantity of land under cultivation in any county of England. The only information of this kind that we can make available for further calculations is contained in the estimates of an individual, Mr. Couling, who gave evidence before a Committee of the House of Commons, which was appointed in 1827 to inquire into the subject of emigration from the United Kingdom. Such an estimate it is manifestly beyond the power of any individual to make, with the requisite degree of accuracy. The time demanded for its accomplishment would necessarily be so great, that changes continually going forward would render it impossible to present a true result with regard to the earlier surveys, and the whole would consequently be incorrect. If even it be conceded that Mr. Couling's estimate was accurate at the time it was offered, we must bear in mind that it was given more than twelve years ago, during which time we have added at least four millions to our numbers, and have therefore necessitated other important changes, which must influence the degree and proportions that might then have correctly designated the employment of the soil. Allowing further, for the moment, that not only was the estimate correct, but that we had the means of rightly adjusting it to the altered circumstances of our population, we should still have acquired a very small, and only an initial, part of the facts which are required in order to arrive at any useful result. To this end it would be necessary to know, not only the extent of cultivable and cultivated land within the kingdom, but also the various uses to which it is applied, and the proportion allotted to each branch of cultivation. We should have then to inform ourselves concerning the productiveness of the soil, the proportion of its produce required for reproduction, the number of the various kinds of animals reared and maintained, the rate of their increase, the proportion of each required for the adequate reproduction of its own kind, the number applicable to the sustenance of the people, the number of skins furnished for purposes of manufacture, the number of fleeces shorn, with various other

particulars which it is not necessary to enumerate here: neither would it be sufficient that these points should be ascertained once for all. We require to know not merely whether the land is capable, under ordinary circumstances, of supplying the absolute wants of the population, but also whether or not the actual produce of each year, as it occurs, is sufficient to that end; and, if it be not sufficient, then to ascertain the proportion in which the harvest may be deficient. For this purpose it is indispensable to have an organised machinery in constant action.

The importance of accurately knowing the provision made for the sustenance of the people is surely not less than that of knowing the yearly produce of various articles of commerce, which are employed as accessories in manufacturing processes. The condition of the crop of Indigo in Bengal is accurately communicated to the merchants in London at the earliest moment when it can be known; and the information thus given has, through its influence upon the market-price, an immediate effect in checking or promoting consumption. The like result is known to attend upon the collection of information concerning the growth of Hops in this country, the extent of land devoted to the cultivation of that article being known through the records of the Excise Office—the department which is intrusted with the collection of the hop-duty.

In Belgium and Holland every kind of information connected with agriculture is obtained with the nicest accuracy. This duty is performed under the superintendence of a body of gentlemen, usually proprietors of estates, residing in different places, and who are elected in the respective provinces for purposes of local government. The functions of the persons thus elected are in many respects similar to those of justices of the peace in English counties. Having the requisite amount of local knowledge concerning the condition and circumstances of the several *communes* in their respective districts, they are enabled to prevent or to detect errors in the returns, which are made, according to forms prescribed for the purpose, at certain periods, by the farmers or occupiers of land; there is therefore reason for placing a considerable degree of confidence in the accuracy of the returns. The result of these returns is every year the subject of a detailed report, which is printed under the authority of the governor of the province, and is then open to the inspection of the inhabitants at large.

A considerable amount of information on the subject of agricultural statistics is collected in different parts of France. A statement was published in September, 1838, by the Prefect of the Department of the Eure, containing a complete account of the agricultural produce of each subdivision of that department. The returns upon which the accounts are based were furnished originally by the mayors, and were examined by committees appointed in each canton and arrondissement, and revised by the help of authentic documents otherwise procured by the prefect of the department, by which means the result has been rendered, if not absolutely perfect, yet substantially true. In this statement we find an account for each canton, giving its population and extent, the distribution of the soil, showing the nature of the crops and the breadth of land appropriated to each, the total produce, the average price of each kind of produce, the quantity used for seed, and the consumption of the native

population, with the extent of land appropriated to the growth of wood, and the quantity lying fallow. Beyond these particulars, the statement contains the number and value of different kinds of animals reared and kept in each canton, the number slaughtered in the year, and the price of each kind of meat.

In the course of a slight examination of this publication, comparing it with such facts as we possess concerning the agricultural interests of our country, some very striking differences appear, into the consideration of which it is not necessary to enter minutely on this occasion.

It will, however, be interesting to state that the produce of wheat throughout the department of the Eure is not equal on the whole to quite 18½ bushels to the English acre, and that the return for seed is not greater than sevenfold; results which, judging from the lights we have, may be pronounced by no means equal to those obtained by English farmers. The produce of barley, of which not much is grown in the Department, does not exceed 17 bushels per acre; of oats, not quite 20½ bushels per acre are obtained.

It is acknowledged that the employment of the machinery necessary for the effective performance of the labour suggested in this kingdom must be attended with a considerable expense. It cannot be expected that persons qualified for the collection of such information should be willing to quit, or to neglect, other and gainful employments for this purpose, except on the condition of being paid for their services. It is very probable that in all parts of the country gentlemen might be found every way qualified by education and personal knowledge of the facts, and who might be willing to examine and control the returns when obtained, from the same motive which leads them to devote their time to other labours connected with the public service; but those to whom the task of the collection is assigned must of course be paid. The number of parishes in the three divisions of the United Kingdom exceeds 14,000, and for each one of these, with the exception of town parishes, a paid agent must be employed. Then, too, although gentlemen in the commission of the peace might be willing to superintend the business in their several counties, they could not be expected to act as clerks, or to perform the mechanical part of the labour; and, for this purpose, one person at least in every county must receive payment; in addition to this, the whole body of information, when collected together, would need to be put into form by some competent person with assistants, each of whom must also receive payment for his services. To provide for the correct performance of the work,—and, unless it were accurately given, the information would be of little value,—might require an annual outlay of from 20,000*l.* to 30,000*l.*;—a large sum unquestionably, and, unless some great national advantage were to be gained by it, the government might be thought very improvident that should undertake or authorise such an expenditure. It appears, therefore, necessary to mention some at least of the benefits which must flow from the possession of accurate information upon this most vital subject, and which would impart a character of prudence to such an outlay.

It is now well known that the harvest of 1837 was deficient to so great a degree that, before the produce of 1838 was secured, the great superabundance of the two preceding harvests was all consumed, and the

stock of grain throughout the kingdom was more nearly exhausted than we have known it to be at any period in modern times; so that, if we could not have had recourse to foreign wheat then warehoused in our ports, we must have suffered most severely before the produce of 1838 could have been brought to market. So completely, however, was the public misinformed upon the subject, that, instead of a reasonable advance in price, sufficient to check consumption, which, as regards the most costly grain, wheat, had, it is well known, been long going on with unwonted profusion, the markets fell progressively during the months of August, September, and October, 1837, from 60*s.* 1*d.* to 51*s.* per quarter; and it was not until the middle of the following May that the average was again as high as it had been just before the harvest of 1837. By the third week in August the weekly average price had advanced beyond the rate at which foreign wheat is admitted on payment of the nominal duty of 1*s.* per quarter. It would not be possible to calculate with any tolerable accuracy the loss in money which this country has sustained through the want of information thus shown with regard to only one year's operations, but we can have no hesitation in believing that its amount must have been at least sufficient, if employed at interest, to provide in perpetuity for every expense that could accompany the most completely organised machinery for collecting agricultural statistics throughout the United Kingdom. If the very considerable purchases of foreign wheat which were suddenly made during the autumn of 1838 in almost every market of Europe, occasioning the prices to be driven up to an exorbitant height, had been made progressively and quietly, without exciting a spirit of wild speculation, which has been productive of subsequent serious losses to many of the importers, no one can doubt that the saving would have been sufficiently great to have borne out the assertion just hazarded. Whether the quality of suddenness, given to the purchases made by us in foreign corn-markets in the autumn of 1838, may not have occasioned an aggravation of the evil under which the money-dealings of the country have since been suffering, is a question as to which different opinions may be entertained. It does not appear unreasonable to conceive that, in proportion as those purchases could have been made to approximate to the conditions of ordinary commercial dealings, so would the derangement which they were calculated to occasion have been diminished, or, to speak more correctly, would not have been produced. The gold which has left our shores in payment for corn will, doubtless, find its way back in exchange for goods, when time shall have admitted of the requisite adjustment. If time, that important ingredient in most human transactions, had been allowed to enter more largely at first into the conditions, that adjustment would, to some extent at least, have accompanied the progress of our dealings.

Our corn-laws were intended, not as a means of acquiring revenue, but wholly for regulation and protection; it may not therefore be right to insist very strongly upon the sums which, under the circumstances just supposed, might have found their way to the Exchequer from this source in 1838, beyond what were actually collected. It may, however, be interesting to state that, if the average rate of duty received upon the foreign wheat and wheat-flour brought into consumption in 1838

had been the same as was received upon that admitted in 1837, the Exchequer would have benefited by the sum of 2,156,596*l.* beyond the amount actually received.* One-fourth part of this sum, if employed at interest, would yield a revenue sufficient for every purpose of inquiry throughout the kingdom.

It would be taking a very narrow view of the subject to limit the advantages of knowledge concerning it to the amount of saving that might be effected under a recurrence of such circumstances as have attended the deficient harvests of 1837 and 1838. The natural, the necessary, tendency of any systematic and comprehensive inquiry, such as might be made by government agents acting under legislative sanction, would be to place the nation, as far as possible, beyond the probability of scarcity. It is well known, by everybody who has made any extensive inquiries concerning the state of agriculture as a science in various parts of the kingdom, that the advances made in some counties have not been hitherto followed in others; and it has been stated, in illustration of this fact, that, if all England were as well cultivated as the counties of Northumberland and Lincoln, it would produce more than double the quantity that is now obtained. To what can this discrepancy be owing, unless it be to the want of information, such as the public agents would collect in each county, and which could not fail to interest deeply every farmer throughout the whole extent of the kingdom? If the cultivators of land, where agricultural knowledge is the least advanced, could be brought to know, upon evidence that would not admit of doubt, that the farmer of Northumberland or Lincolnshire procured, from land of fertility not superior to his own, larger and more profitable crops than he is in the habit of raising, is it likely that he would be contented with his inferiority? The farmers of England have often been accused of an undue preference for the plans and processes employed by their ancestors, and their pertinacity in this respect has been contrasted with the rapidity that accompanies the march of improvement in mechanical and manufacturing processes. The reason for this difference is obvious. Manufacturers, residing in towns, are brought necessarily and constantly into collision; new inventions are continually brought under their notice, so that their results can be tested and judged with the greatest accuracy. Practical agriculturists, on the contrary, live apart; they come together but rarely, and have not that degree of acquaintanceship, the one with the other, which leads them, even when they meet, to the interchange of professional experience. If the result of a successful experiment should at any time reach their ears, they cannot be certain that all the circumstances connected with its prosecution have been faithfully detailed, or that the advantages ascribed to a new method may not be the consequence of accidental causes, such as a propitious season, for instance. Men are

* 1837 Cleared for consumption, Wheat 232,793 qrs. Duty £303,179
Ditto Flour 40,187 cwts. Ditto 3,681
1838 Ditto Wheat 1,740,806 qrs. Ditto 136.011
Ditto Flour 392,847 cwts. Ditto 10,522
The duty in 1838, at the same rate as in 1837, would have been—
On Wheat . . £2,267,146
Flour . . 35,983
Difference as above £2,156,596.

generally prone to doubt everything that is not presented to their own observation, and this is especially the case with regard to improvements, which imply the mental superiority of others over ourselves. The manufacturer, on the contrary, sees for himself; he is not called upon to take anything upon trust; he can weigh and judge with the minutest accuracy all the circumstances of each case; and what he sees can owe no part of its success to other than human agency; what another has once done, he may always successfully imitate. The tendency of information, such as would be procured by the agency already described, would be in a great degree to remove the disadvantage in this respect under which the farmer now suffers. Results placed before him upon such unquestionable authority, resting not upon a single experiment only, but upon the practice of hundreds of men placed in the same circumstances as himself, must be received by him as undoubted facts, and he must be driven to the adoption of whatever might come thus recommended, with an alacrity equal to that which we see exhibited by the manufacturer.

It is to be feared that the time is yet distant in which various classes of the same community will be willing to make the apparent sacrifice, each one of its own fancied advantages, on the altar of the general good, with the conviction that the share each must obtain of that good will prove an ample compensation for any peculiar benefit that may be relinquished. The contrary principle seems at present to be held with the greatest tenacity. It is besides feared that, if the public should acquire knowledge of any such peculiar advantages, those who possess them would be exposed to have them invaded. The agricultural is, in this country, what is called a *protected* interest; our cultivators, consequently, appear desirous of excluding inquiries which might have the effect of weakening their claim to the continuance of that protection. This fear is altogether chimerical. In Belgium, where the utmost publicity is given to every circumstance connected with the agriculture of the country, it has never been pretended that any advantage has been taken of that publicity; and if this can be truly said of Belgium, where the members of the legislative chambers have not by any means so great, nor so direct, an interest in the landed property of the kingdom as is possessed by the members of our two houses of Parliament, there cannot surely be any reason to dread lest injury should be thus occasioned in England.

The information, which it appears to be so desirable to obtain with reference to the whole kingdom, is already easily procurable with regard to each individual farm by any person who has a sufficient interest to incite him to the task. The landlord, who is interested in extracting a due proportion of the produce of a farm under the name of rent, cannot find much difficulty in correctly estimating that produce. A similar facility attends the operations both of the tithe-proctor and of the parochial tax-gatherer. The knowledge is, in fact, already procurable by every one who can turn it to the disadvantage of the farmer; all that is wanted is to extend the information, so that the farmer himself may be placed in a condition to profit from its possession.